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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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09/741,072

12/21/2000

Juen-Kuen Lin

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05/20/2008

J.C. Patents
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EXAMINER

NGUYEN, DUNG V

ART UNIT

PAPER NUMBER

3723

MAIL DATE

DELIVERY MODE

05/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 09/741,072 | Applicant(s) LIN ET AL. | |
| | Examiner Dung Van Nguyen | Art Unit 3723 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-7,11 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,11 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21 March 2008 has been entered.

2. The indicated allowability of claims 1, 4-7, 11 and 14 is withdrawn in view of the newly discovered reference(s) to Volodarsky et al and Black et al. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5-7 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Volodarsky et al (USPN 5,803,799). Volodarsky et al discloses a wafer polishing head 10 for polishing a wafer W comprising a carrier 20 for loading a wafer W, a wafer adhering layer 52 disposed beneath the carrier 20, a retaining ring 22 surrounding the carrier 20 and the wafer adhering layer 52, a first pressure chamber 42 having a first inner pressure disposed above the retaining ring 22, a second pressure chamber 28

having a second inner pressure disposed on the carrier 20, a relative height between the retaining ring 22 and the carrier 20 can be adjusted by changing the first and second inner pressure, an automatic control system respective coupled to the first pressure chamber 42 and the second pressure chamber 28 for adjusting a relative height between the carrier 20 and the retaining ring 22, regulating device 32, 46 for adjusting fluid pressure in the first and second pressure chambers 42, 28, ordinary skill in the art would understand that a controller (computer) controls the regulating device by converting data to digital signals for controlling regulating devices 32, 46 (note Fig. 1, col. 2, line 37 to col. 4, line 51).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Volodarsky et al (USPN 5,803,799) in view of Black et al (USPN 6,077,151).

Volodarsky et al discloses the claimed invention as described above, Volodarsky et al does not disclose a chamber is partially filled by a liquid. Black et al discloses a chamber can be filled with liquid or gas (note Fig. 1, col. 2, line 60 to col. 3, line 3). It would have been obvious to one having ordinary skill in the art at the time the invention was made of modify the wafer polishing head of Volodarsky et al with a chamber filled with a liquid as disclosed by Black et al in order to control the temperature of the wafer.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 4-7, 11 and 14 have been considered but are moot in view of the new ground(s) of rejection.

Terminal Disclaimer

8. The terminal disclaimer filed on 1 August 2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Patent Number 6,220,930 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Van Nguyen whose telephone number is 571-272-4490. The examiner can normally be reached on PHP Program.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3723

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dung Van Nguyen/
Primary Examiner, Art Unit 3723
May 16, 2008